

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AND FIREHOUSE PRE-EMPTION AT THE INTERSECTION OF MD 45 (YORK ROAD) AND FREELAND ROAD IN BALTIMORE COUNTY. MD 45 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 45 APPROACHES OPERATING CONCURRENTLY AND THE FREELAND ROAD APPROACH OPERATING ALONE.

WHEN A PUSHBUTTON IS ACTIVATED WITHIN THE MD LINE VOLUNTEER FIREHOUSE, THE FREELAND ROAD APPROACHES ARE STOPPED AND THE MD 45 APPROACHES OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35-01 (LANE SHIFT)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. DAVE MALKOWSKI
DISTRICT ENGINEER
PHONE: (410) 321-2810

MR. GRADON TOBERY
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 321-2821

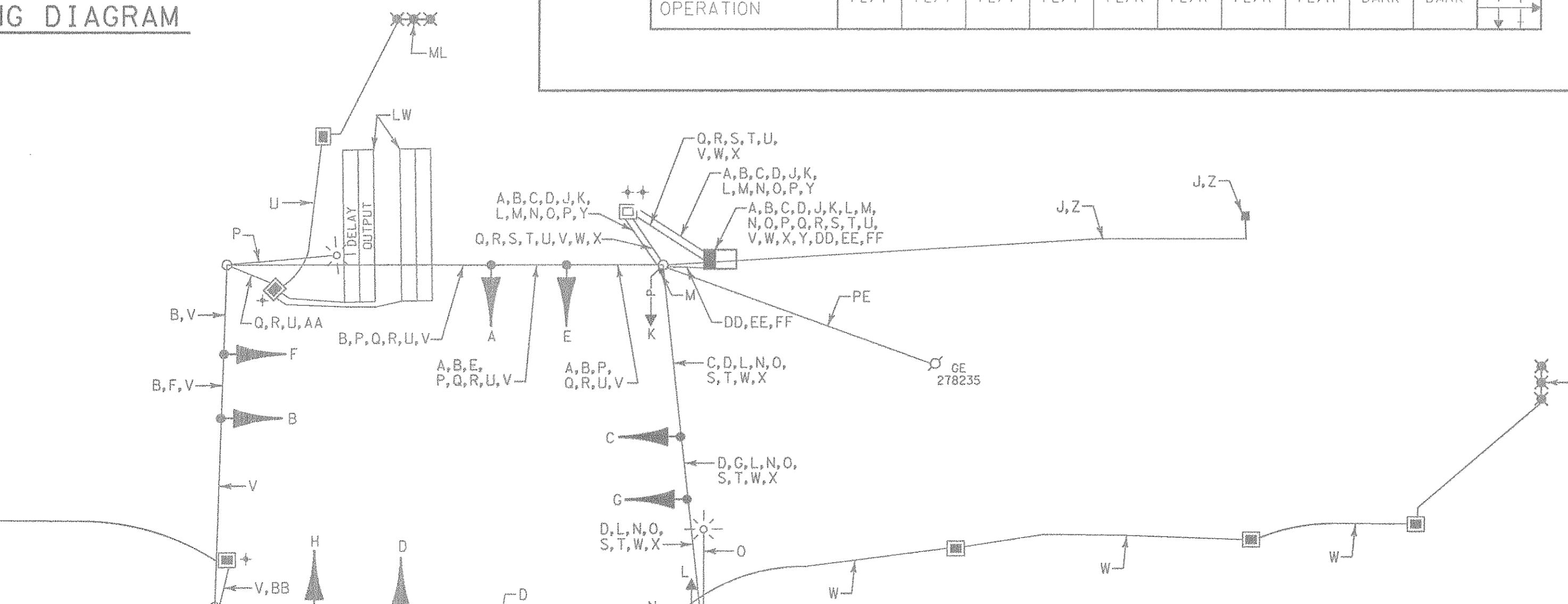
MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2781

MR. JOSEPH McMAHON
DISTRICT UTILITIES ENGINEER
PHONE: (410) 321-2841

MR. DAVE RAMSEY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM

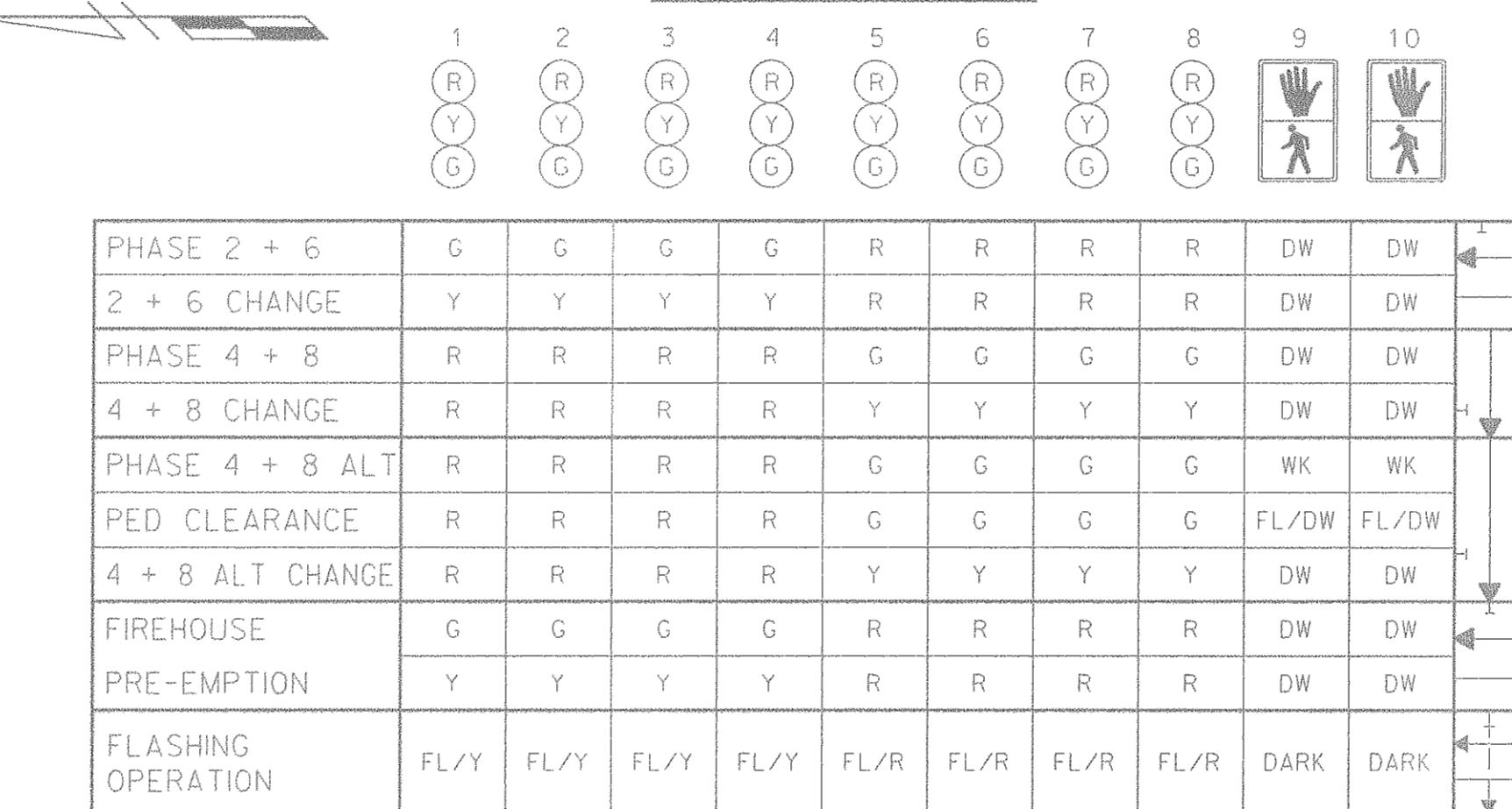


EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9087	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9089	176 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 4 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAG - GROUND MOUNT
		- 4 EACH D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - SPAN MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD45, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD45, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD45, RIGHT ARROW" (24 IN. X 51 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD45, LEFT ARROW" (36 IN. X 75 IN.) - POLE MOUNT
		- 2 EACH D3 - (2) "FREELAND RD" SIGN (72 IN. X 12 IN.) - GROUND MOUNT
9096	2 EACH	PEDESTRAIN PUSHBUTTON AND R10-4(1) SIGN (NOTE: SIGN TO READ "PUSH BUTTON TO CROSS YORK ROAD")

PHASE CHART



EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	1 C.Y.	TEST PIT EXCAVATION
2004	8 C.Y.	CLASS 2 EXCAVATION
5002	50 L.F.	5 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5003	145 L.F.	12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5004	70 L.F.	24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	80 L.F.	REMOVE EXISTING PAVEMENT MARKING - ANY WIDTH
6001	250 S.F.	4 INCH CONCRETE SIDEWALK
6009	40 L.F.	FURNISH AND INSTALL DEPRESSED CURB AND GUTTER
8001	2 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8009	400 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8 INCH DIAMETER
8010	125 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 1/4 INCH DIAMETER
8016	1 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FT. LEAD-IN
8017	3 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN
8018	2 EACH	INSTALL PUSHBUTTON AND SIGN
8020	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	630 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	120 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8024	1570 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8026	60 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8027	25 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	50 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8033	11 EACH	FURNISH AND INSTALL ELECTRICAL HANDBOLES
8034	5 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	1900 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	900 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8042	300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
8043	300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
8044	140 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8045	780 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8046	380 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.) TYPE IN. TC IN.
8048	330 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8049	60 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
8051	80 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8052	76 S.F.	INSTALL GROUND MOUNTED SIGN
8053	100 S.F.	INSTALL OVERHEAD SIGN
8058	1 EACH	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8061	2 EACH	INSTALL CONDUIT BEND INTO EXISTING BASE
8066	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE 3 WIRE SYSTEM)
8084	24 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8087	4 EACH	FURNISH AND INSTALL 12 INCH PEDESTRIAN SIGNAL HEAD SECTION
NEG	LUMP SUM	FIREHOUSE PUSHBUTTON

REVISIONS

APPROVALS

ASST. TRAFFIC ENGINEERING DESIGN DIVISION

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

MD 45 (YORK ROAD) & FREELAND ROAD

DRAWN BY: S.BLOSS

CHECKED BY: N.LEARY

SCALE: 1" = 20'

DATE: 9-27-99

F.A.P. NO. 1644A

S.H.A. NO.

COUNTY: BALTIMORE

T.I.M.S. NO. D382

SET NO. 1

TS NO. 1644A

LOG MILE: 0

OF 2

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and Associates, LLP
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